

CLAIMS

- 1) A controlled hydrocarbon permeability multilayer structure comprising at least one inner polymer layer (6, 8) and at least one outer layer (5, 9) comprising a mixture of polymer material and of fillers, characterized in that said fillers are mineral and selected
5 to adsorb and to trap an amount of hydrocarbons discharged through said inner layer so as to reduce the permeability of said structure.
- 2) A structure as claimed in claim 1, wherein said adsorbent mineral fillers are selected from the following group : zeolite, activated charcoal, carbon nanotubes and mixtures thereof.
- 10 3) A structure as claimed in any one of the previous claims, wherein the polymer of the inner and outer layers is selected from : polyolefins (PE, PP), polyamides, fluoropolymers, polymer alloys (PE-PA), elastomers.
- 4) A structure as claimed in any one of the previous claims, wherein the polymer material of the inner layer comprises permeability-reducing fillers of micrometric type,
15 such as talc, metal particles for example, or of nanometric type, such as clays for example.
- 5) A structure as claimed in any one of the previous claims, wherein another layer (7) is inserted between the inner layer and the outer layer.
- 6) A structure as claimed in claim 1, wherein at least one face is treated, for
20 example by fluorination, to reduce the permeability.

7) A structure as claimed in any one of the previous claims, made by extrusion, injection, blowing, rotational moulding or compression.

8) Application of the structure as claimed in any one of claims 1 to 7 to the manufacture of tanks for motor vehicles.

5 9) Application of the structure as claimed in any one of claims 1 to 7 to the manufacture of fuel lines for motor vehicles.